Catalogue of American Amphibians and Reptiles.

HARDY, LAURENCE M. 1978. *Ficimia olivacea.*

Ficimia olivacea Gray
Brown hook-nosed snake

Ficimia olivacea Gray, 1849:80. Type-locality, "Mexico." Syntypes, British Mus. Natur. Hist. 1946.1.5.44 and 1946.1.5.45, two adult males, collected by Hugo Finck, date of collection unknown (both examined by author).
Ficimia olivacea olivacea: Smith, 1943-429.
Ficimia elaiacroma Jan, 1862:58. Type-locality, unknown. Holotype presumably in the collection of Eberhard-Karls-Universität, Tübingen, Germany, a male (adult?), collector and date of collection unknown (not examined by author).

• CONTENT. No subspecies are recognized.

• DEFINITION AND DIAGNOSIS. Smooth dorsal scales in 19-19-17-17-17 rows with single apical pits and no anal ridges; internasals absent; nasal entire above, divided below naris; loreal absent; one preocular; one or two postoculars; 1 + 2 temporals; rostral contacting frontal, turned up in front and sharp edged; seven supralabials; 3–4 labials contacting orbit; 2–3 labials contacting preocular; seven infralabials; 1–3 labials contacting anterior chin shields; mental separated from anterior chin shields by mutual median contact of first infralabials; nasal separated from preocular and fused to first supralabial; dorsal caudal rows reduce to six at subcaudals 6–15 ($\bar{x}$ = 11), reduce to 4 at subcaudals 14–27 ($\bar{x}$ = 22); ventrals, 144–147 (♀ ♀), 132–151 (♂ ♂); subcaudals, 35–37 (♀ ♀), 30–41 (♂ ♂); anal plate divided.

There are 14–17 ($\bar{x}$ = 14.4) maxillary teeth that increase gradually in size fron anterior to posterior and usually lack grooves (two specimens show faint grooves in most maxillary teeth); there is no diastema. Seven to 10 palatine teeth are not grooved and increase in size from anterior to posterior. The first three dentary teeth are smaller, the remaining 11–13 teeth are subequal; none is grooved.

The hemipenis is single with a simple sulcus spermaticus that has a smooth border proximally, but is spinulate on distal one-half. The base of the organ has two large spines bordering the sulcus spermaticus and other spines that are progressively smaller with increasing distance distally from the large basal spines. The basal one-quarter of the hemipenis is naked; the next one-quarter with small spines that decrease in size distally; next one-quarter calyculate with spinulate margins, the spines becoming smaller and more numerous distally (the transition between the spinulate and calyculate parts of the hemipenis is rather abrupt but probably not enough to be termed capitate).

Ficimia olivacea is distinguished from all other species of the genus by being unicolor brown above, becoming cream colored on the lower sides and immaculate creamy white ventrally.

• DESCRIPTIONS. Gray (1849) included the description of the species in the generic description. Peters (1869) discussed some characteristics of this species. The best early description is that of Bocourt (1883) based on one specimen. Garman (1884) described one specimen. Günther (1885–1902) described one adult and one young (see PERTINENT LITERATURE). A brief description of the rudimental (left) lung is in Cope (1895, 1900). Scutellation and color characteristics of an individual from Veracruz are in Taylor (1936). Variation in four specimens, including data on the maxilla and hemipenis of one specimen is summarized in Smith and Taylor (1941). Martin (1958) discussed habitat and color pattern variation. Descriptions of scutellation, size, and color are in Fouquette and Rossman (1963). Brown and Brown (1967) described a diagnostic labial spot in *F. streckeri* that is absent in *F. olivacea*. Saiff (1975) noted the absence of preglottal structures. A summary of scutellation, and characteristics of the dentition, some aspects of the osteology, coloration, and hemipenis are in Hardy (1975a).

• ILLUSTRATIONS. The first illustrations of this species are two line drawings of the head (Bocourt, 1883). A drawing of the whole animal and a detailed drawing of the head are in Günther (1885–1902; pl. 35B). Cope (1895, 1900) illustrated the hemipenis (incompletely everted). Drawings of the head, a phylogenetic diagram, and a distribution map are in Smith and Taylor (1941). Photographs of the syntypes and a distribution map are in Hardy (1975a).

• DISTRIBUTION. *Ficimia olivacea* occurs in highlands and lowlands of eastern Mexico, including Tamaulipas (Martin, 1958), Veracruz (Cope, 1866; Ruthven, 1912; Taylor, 1936; Smith, Smith, and Werler, 1952; Fouquette and Rossman, 1963) San Luis Potosí, Distrito Federal (Dunn, 1936), and Oaxaca (Smith and Taylor, 1941), southward to the Isthmus of Tehuantepec (Smith, 1943; Hardy, 1975a).

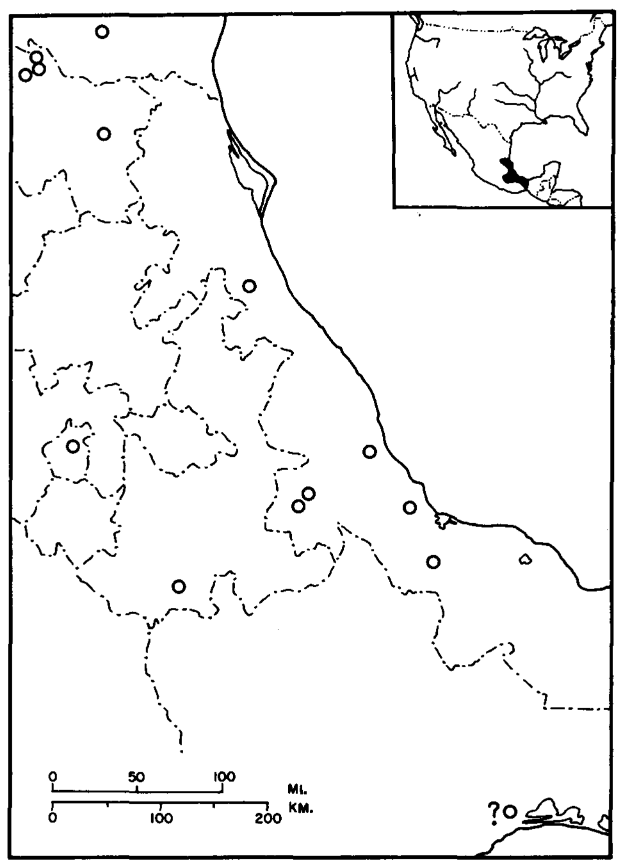
This species was reported from the Petén region of Guatemala by Stuart (1935); however, no museum number was listed by Stuart. The specimen was not received with other specimens of *F. olivacea* from the University of Michigan Museum of Zoology, has not been reported elsewhere in the literature, and has not been located by me. Smith and Taylor (1941) apparently assumed that the record actually represents *F. publia*. The distribution presented here differs slightly from Hardy (1975a) because one locality in Tamaulipas has since been precisely determined (and included on the map) and the southernmost locality in Veracruz was in error and has been deleted. Three other localities have been added but do not affect the overall distribution.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Hardy (1975a) summarized variation in this species and continues to recognize it as a distinct species. Hardy (1975b) proposed phylogenetic relationships with other species of the genus.

In a discussion of rudimental lungs in snakes, Cope (1895) listed *F. olivacea* as the only species examined by him that does not have a tracheal foramen connecting the rudimental lung to the trachea. Cope (1896, 1900) listed *F. olivacea* as a member of his Austroriental district of Mexico.

Stuart (1935) added *F. olivacea* to the fauna of Guatemala and considered it a member of the Central American fauna with its origin in Central America. He also considered it a rare species characteristic of the forest habitat (see DISTRIBUTION).



MAP. The hollow symbols mark the known localities; the exact type-locality is unknown. The question mark denotes the town of Tehuantepec; the collector might actually have meant the region of the Isthmus.

Smith and Taylor (1941) presented the evolutionary relationships of this species to others in the genus.

Martin (1958) discussed the habitat and subspecific relationships with *F. streckeri*; he also recorded *olivacea* as food of a *Micrurus* [*fulvius*] from Tamaulipas.

A brief review of the literature on reproduction, comments on the geographic and altitudinal distributions, and the observation that *F. olivacea* is oviparous are in Greer (1966).

Holman (1973) examined one specimen as comparative material in the original description of a new species of *Elaphe* from the Pliocene.

McDowell (1974) compared the structure of the rostral to that of *Typhlina olivacea*.

The discussion and illustration in Steindachner (1870) really pertain to *F. streckeri*.

• NOMENCLATURAL HISTORY. In a footnote, Duméril and Bocourt (1883) indicated a questionable synonymy of *F. elaiacroma* Jan (1862) with *F. olivacea* Gray (1849). Later, Cope (1887) definitely placed F. *elaeochroma* Jan (1862) and *Amblymetopon variegatum* Günther (1858) in the synonymy of *F. olivacea*.

Smith (1944a) considered *F. olivacea* to be a subspecies of *F. streckeri*, and later (1944b) stated that "intergradation between the two races probably does not occur north of the Tropic of Cancer." Shannon and Smith (1949) concluded that *F. olivacea* and *F. streckeri* are not conspecific. Taylor's (1949) study of 10 specimens of *F. streckeri* that showed no evidence of intergradation reinforced this conclusion. Smith, Smith, and Werler (1952) pointed out the smaller relative size of the eye in *F. olivacea* as more evidence that *F. streckeri* and *F. olivacea* are distinct.

• ETYMOLOGY. The specific epithet (*olivacea*) is from Latin (*oliv*, olive-green color; *acea*, of or pertaining to), in reference to the general coloration.

COMMENT

Günther (1885–1902) described and figured two specimens of *F. olivacea*; one unicolor specimen he called an adult and one blotched specimen he called a young specimen. He also synonymyzed *Amblymetopon variegatum* with *F. olivacea*. In the synonymy the reference for *A. variegatum* is followed by "(young)" which may refer to the young blotched specimen examined by Günther. Smith and Taylor (1941) referred the young specimen to *F. variegata* and concluded that it was one of the "cotypes" of *F. variegata*. There is no direct evidence for that conclusion in Günther (1885–1902). Later, Smith and Taylor (1945) referred the same Günther specimen to *F. ruspator*. Günther's (1885–1902, pl. 35C) illustration shows a blotched specimen with blotches greater than one scale in length, no internasals, two postoculars, and interspaces less than twice the length of the blotches. These characteristics fit either *F. variegata* or *F. publia* (depending on the body blotch count), but not *F. ruspator*. Furthermore, close examination of Günther's drawing reveals more than 10 items of the head pattern that match the head pattern of one of the syntypes (BMNH 1946.1.5.49) of *F. variegata*. In my opinion, the "young" blotched specimen examined by Günther was a syntype (BMNH 1946.1.5.49) of *F. variegata*. The specimen has 44 dorsal blotches.

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